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IN THE CLAIMS

Please amend claims 8 and 15 as follows:

1. (Current) An apparatus for enhancing the quality of an input audio signal comprising a plurality of frequency components within a band of audible frequencies having a low end and a high end, said apparatus comprising:

(24) a passive circuit which distorts the input signal, when transmitted therethrough, into an enhanced audio signal by distorting audible frequency components of the input audio signal such that the audible frequency components increase in amplitude as they increase in frequency from a first intermediate frequency up to a high frequency, wherein audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

2. (Current) The apparatus as set forth in claim 1, wherein the high frequency is a peak high frequency in the range of from about 6 KHz to about 30 KHz.

3. (Current) The apparatus as set forth in claim 1, wherein the frequency component at the high frequency has an amplitude that is from about 1.5 times to about 3.0 times the amplitude of the intermediate frequency.

4. (Current) The apparatus as set forth in claim 1, wherein said passive circuit further enhances the input signal by distorting other audible frequency components such that the other audible frequency components increase in amplitude as they decrease in frequency from a second intermediate frequency down to a low frequency, wherein audible sound reproduced from the enhanced audio signal exhibits more of a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

5. (Current) The apparatus as set forth in claim 4, wherein the low frequency is a peak low frequency in the range of from about 20 Hz to about 1.0 KHz.

6. (Current) The apparatus as set forth in claim 4, wherein the frequency component at the low frequency has an amplitude that is from about 1.25 times to about 2.0 times the amplitude of the second intermediate frequency.

7. (Current) The apparatus of claim 4, wherein the first and second intermediate frequencies are the same frequency.

8. (Amended) The apparatus as set forth in claim 1, wherein said passive circuit comprises at least one transformer that effects at least part of the distortion without weak or loose coupling.

9. (Current) The apparatus as set forth in claim 8, wherein said passive circuit comprises a single transformer that effects the distortion of the input signal as defined by a portion of a frequency response curve, the portion sloping upward in amplitude from the intermediate frequency to the high frequency.

10. (Current) The apparatus as set forth in claim 4, wherein said passive circuit comprises first and second transformers that effect the distortion of the input signal as defined by a first portion and a second portion of a frequency response curve, the first portion sloping upward in amplitude from the first intermediate frequency to the high frequency, and the second portion sloping upward in amplitude from the second intermediate frequency to the low frequency.

11. (Current) The apparatus as set forth in claim 10, wherein said first and second intermediate frequencies are the same frequency.

12. (Current) An audio system comprising:
an audio signal source for generating an input audio signal comprising a plurality of frequency components within a band of audible frequencies having a high end and a low end; and

a passive circuit for distorting said input audio signal, when transmitted therethrough, into an enhanced audio signal by distorting audible frequency components such that the audible frequency components increase in amplitude as they increase in frequency from an intermediate frequency up to a high frequency, wherein audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

13. (Current) An audio system as set forth in claim 12, further comprising an audio amplifier for generating a speaker drive signal, wherein said passive circuit couples said input signal to said audio amplifier and no active element is coupled between said audio source and said audio amplifier.

14. (Current) The audio system as set forth in claim 12, wherein said passive circuit further enhances the input signal by distorting other audible frequency components such that the other audible frequency components increase in amplitude as they decrease in frequency from an intermediate frequency down to a low frequency, wherein audible sound reproduced from the enhanced audio signal exhibits more of a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

15. (Amended) The audio system as set forth in claim 12, wherein said passive circuit comprises at least one transformer that effects at least part of the distortion without weak or loose coupling.

16. (Current) The audio system as set forth in claim 15, wherein said passive circuit comprises a single transformer that effects the distortion of the input signal as defined by a portion of a frequency response curve, the portion sloping upward in amplitude from an intermediate frequency to the high frequency.

17. (Current) The audio system as set forth in claim 14, wherein said passive circuit comprises first and second transformers that effect the distortion of the input signal as defined by

a first portion and a second portion of a frequency response curve, the first portion sloping upward in amplitude from an intermediate frequency to the high frequency, and the second portion sloping upward in amplitude from an intermediate frequency to the low frequency.

18. (Current) A method of enhancing the quality of electronic audio signals, comprising the steps of:

providing an input audio signal comprising a plurality of frequency components within a band of audible frequencies having a high end and a low end; and

passively distorting the input audio signal into an enhanced audio signal by distorting audible frequency components such that the audible frequency components increase in amplitude as they increase in frequency from an intermediate frequency up to a high peak frequency, wherein audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

19. (Current) The method as set forth in claim 18, wherein said step of distorting also includes further enhancing the input signal by distorting other audible frequency components passively such that the other audible frequency components increase in amplitude as they decrease in frequency from an intermediate frequency down to a low frequency, wherein audible sound reproduced from the enhanced audio signal exhibits more of a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

20. (Current) The method as recited in claim 18, further comprising the step of transmitting the enhanced audio signal from one location to another.

21. (Current) The method as recited in claim 18, further comprising the step of processing the enhanced audio signal into sound.

22. (Current) The method as recited in claim 18, further comprising the step of recording the enhanced audio signal onto a recording medium.

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23. (Current) A recording medium having at least one enhanced audio signal recorded thereon by the method of claim 18.

24. (Current) The apparatus as recited in claim 1, wherein said passive circuit distorts a substantial number of the audible frequency components of the input audio signal such that the substantial number of audible frequency components increase in amplitude as they increase in frequency from the first intermediate frequency up to the high frequency.

25. (Current) The apparatus as recited in claim 1, wherein said passive circuit non-uniformly amplifies the audible frequency components of the input audio signal such that the audible frequency components increase in amplitude as they increase in frequency from the first intermediate frequency up to the high frequency.

26. (Current) The apparatus as recited in claim 1, wherein said passive circuit distorts a majority of the frequency components.

27. (Current) The apparatus as recited in claim 1, wherein the input audio signal is provided by at least one of a microphone, a recording medium player, a radio, a television, sonar, a computer, a hearing aid, and a telephone.

28. (Current) The apparatus as recited in claim 1, wherein said passive circuit distorts the audible frequency components of the input signal such that the audible frequency components exhibit up to a total of only two significant amplitude peaks between the low end and the high end.

29. (Current) The apparatus as set forth in claim 9, wherein the portion of the frequency response curve non-linearly slopes upward in amplitude from the intermediate frequency to the high frequency.

30. (Current) The apparatus as set forth in claim 10, wherein the first portion of the frequency response curve non-linearly slopes upward in amplitude from the first intermediate frequency to the high frequency and the second portion of the frequency response curve non-linearly slopes upward in amplitude from the second intermediate frequency to the low frequency.

31. (Current) The audio system as recited in claim 12, wherein said passive circuit distorts a majority of the frequency components.

32. (Current) The audio system as recited in claim 12, wherein said passive circuit distorts the audible frequency components of the input signal such that the audible frequency components exhibit up to a total of only two significant amplitude peaks between the low end and the high end.

33. (Current) The method as recited in claim 18, wherein said distorting step involves distorting a majority of the frequency components.

34. (Current) An apparatus for enhancing the quality of an input audio signal comprising a plurality of frequency components within a band of audible frequencies having a low end and a high end, said apparatus comprising:

a passive circuit which distorts the input signal, when transmitted therethrough, into an enhanced audio signal by distorting audible frequency components such that the audible frequency components increase in amplitude as they decrease in frequency from an intermediate frequency down to a low frequency, wherein audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality compared to audible sound reproduced from the input audio signal.

35. (Current) The apparatus as recited in claim 1, wherein said passive circuit distorts a substantial number of the audible frequency components of the input audio signal such that the

substantial number of audible frequency components increase in amplitude as they decrease in frequency from the intermediate frequency down to the low frequency.

36. (Current) The apparatus as recited in claim 1, wherein the input audio signal is a converted form of an original sound, and said passive circuit is operatively adapted to distort the input audio signal such that audible sound reproduced from the enhanced audio signal sounds perceptively closer to the original sound heard live in an acoustically designed environment than audible sound reproduced from the input audio signal heard in the same acoustically designed environment.

37. (Current) The audio system as recited in claim 12, wherein the input audio signal is a converted form of an original sound and said passive circuit is operatively adapted to distort the input audio signal such that audible sound reproduced from the enhanced audio signal sounds perceptively closer to the original sound heard live in an acoustically designed environment than audible sound reproduced from the input audio signal heard in the same acoustically designed environment.

38. (Current) The method as recited in claim 18, wherein the input audio signal is a converted form of an original sound and said passively distorting step distorts the input audio signal such that audible sound reproduced from the enhanced audio signal sounds perceptively closer to the original sound heard live in an acoustically designed environment than audible sound reproduced from the input audio signal heard in the same acoustically designed environment.

39. (Current) The apparatus as recited in claim 34, wherein the input audio signal is a converted form of an original sound and said passive circuit is operatively adapted to distort the input audio signal such that audible sound reproduced from the enhanced audio signal sounds perceptively closer to the original sound heard live in an acoustically designed environment than audible sound reproduced from the input audio signal heard in the same acoustically designed environment.

40. (Current) The apparatus as recited in claim 1, wherein said passive circuit is operatively adapted such that when the input audio signal is of music provided from a compact optical disc and the resulting enhanced audio signal is recorded onto a cassette magnetic tape, said passive circuit imparts an enhancement to the input audio signal such that audible music reproduced from the enhanced audio signal on the cassette tape is clearer and exhibits an improved sound source separation compared to audible music reproduced from the input audio signal on the compact optical disc.

41. (Current) The audio system as recited in claim 12, wherein said passive circuit is operatively adapted such that when the input audio signal is of music provided from a compact optical disc and the resulting enhanced audio signal is recorded onto a cassette magnetic tape, said passive circuit imparts an enhancement to the input audio signal such that audible music reproduced from the enhanced audio signal on the cassette tape is clearer and exhibits an improved sound source separation compared to audible music reproduced from the input audio signal on the compact optical disc.

42. (Current) The method as recited in claim 18, wherein when the input audio signal provided is music from a compact optical disc, said passively distorting step imparts an enhancement to the input audio signal such that when the enhanced audio signal is recorded onto a cassette magnetic tape the audible music reproduced from the cassette tape is clearer and exhibits an improved sound source separation compared to audible music reproduced from the input audio signal on the compact optical disc.

43. (Current) The apparatus as recited in claim 34, wherein said passive circuit is operatively adapted such that when the input audio signal is of music provided from a compact optical disc and the resulting enhanced audio signal is recorded onto a cassette magnetic tape, said passive circuit imparts an enhancement to the input audio signal such that audible music reproduced from the enhanced audio signal on the cassette tape is clearer and exhibits an

improved sound source separation compared to audible music reproduced from the input audio signal on the compact optical disc.

44. (Current) The apparatus as recited in claim 1, wherein said circuit distorts the input audio signal, when transmitted therethrough, such that the audible frequency components increase in amplitude as they increase in frequency from the first intermediate frequency up to an amplitude peak and there is up to a total of only two amplitude peaks between the low end and the high end, and where the low end and the high end define the range of normal human hearing.

45. (Current) The audio system as recited in claim 12, wherein said circuit distorts the input audio signal, when transmitted therethrough, such that the audible frequency components increase in amplitude as they increase in frequency from the intermediate frequency up to an amplitude peak and there is up to a total of only two amplitude peaks between the low end and the high end, and where the low end and the high end define the range of normal human hearing.

46. (Current) The method as recited in claim 18, wherein said passively distorting step distorts the input audio signal into an enhanced audio signal by distorting audible frequency components such that the audible frequency components increase in amplitude as they increase in frequency from the intermediate frequency up to an amplitude peak and there is up to a total of only two amplitude peaks between the low end and the high end, and where the low end and the high end define the range of normal human hearing.

47. (Current) The apparatus as recited in claim 34, wherein said circuit distorts the input audio signal, when transmitted therethrough, such that the audible frequency components increase in amplitude as they decrease in frequency from the intermediate frequency up to an amplitude peak and there is up to a total of only two amplitude peaks between the low end and the high end, and where the low end and the high end define the range of normal human hearing.